

## WHAT IS CLAIMED IS:

1. A relay apparatus which is connected to a host computer through a network and transmits data received from said host computer to a device, comprising:

5 a first basic unit into which a peculiar network address is set and which performs a relay control between said host computer and said device;

a second basic unit into which the same network address as that of said first basic unit is set and which performs a relay control between said host computer and said device; and

10 a common unit which makes one of said first basic unit and said second basic unit operative as a present system, monitors its status, and when an abnormality is detected during said monitoring operation, stops the basic unit of the present system and switches it to an operation of the basic unit of a standby system.

2. An apparatus according to claim 1, wherein each of said first and second basic units comprises:

20 a host communication control unit which is connected to said host computer and communicates therewith;

a device communication control unit which is connected to said device and communicates therewith;

a main control unit which performs a relay control for relaying the data received from said host computer to said device;

25 a setting unit which inputs set information necessary for the relay;

a secondary storing unit which stores resources including

said set information, a control program, and character patterns from the host computer; and

a status monitoring unit which periodically notifies said common unit of a self status obtained as a self diagnosis result,

and said common unit comprises:

a common unit interface which is connected to said first basic unit and said second basic unit and communicates therewith;

a common unit address unit using a non-volatile memory which stores a common network address which is used for said first and second basic units; and

an abnormality detecting unit which, when the abnormality is detected from a status notice of the basic unit of the present system, instructs a power-off of the basic unit of the present system, thereafter, instructs a power-on of the basic unit of the standby system, and further, transmits the common network address stored in said common unit address unit to said host communication control unit of the basic unit of the standby system, thereby allowing said common network address to be taken over.

3. An apparatus according to claim 1, wherein said abnormality detecting unit of said common unit has a timer which sets a predetermined set time and is reactivated each time the periodic status notice from said basic unit is received and detects abnormality of the basic unit of the present system from time-out of said timer.

4. An apparatus according to claim 2, wherein if said common network address cannot be received from said common unit upon

activation by a power-on, said host communication control unit of each of said first and second basic units reads out a common network address stored in a self address ROM and sets it.

5           5.           An apparatus according to claim 2, wherein:

                  said common unit has a processing system selecting switch which selects the basic unit of the present system;

                  said common unit interface instructs a power-off to the basic unit of the present system and, thereafter, instructs a power-on to the basic unit selected by said processing system selecting switch in response to a notice of a power-on operation from said first basic unit or said second basic unit; and

                  each of said first and second basic units has a power control unit which notifies said common unit of the power-on operation at the time of a turn-on operation of a power switch, turns on a self power source when a power-on instruction is received from said common unit, and turns off the self power source when a power-off instruction is received from said common unit.

20           6.           An apparatus according to claim 5, wherein

                  when the host computer of the present system and the host computer of the standby system are arranged through the network,

                  each of said first and second basic units stores each set information of said host computer of the present system and said host computer of the standby system,

25                   said common unit has a host selecting switch which instructs a selection of the host computer of the present system or the host

computer of the standby system and responds a selecting instruction of said host selecting switch in response to the notice of the power-on operation from said first basic unit or said second basic unit, and

the first basic unit or the second basic unit which received the power-on instruction from said common unit is initialized by the set information of said selected and instructed host computer and starts the relay operation.

7. An apparatus according to claim 2, wherein a plurality of devices such as displays and/or printers and the like are connected to said device communication control unit of each of said first and second basic units by a common local area network.

8. An apparatus according to claim 2, wherein a plurality of devices such as displays and/or printers and the like are individually connected to said device communication control unit of each of said first and second basic units by coaxial lines through a switching mechanism.

9. An apparatus according to claim 2, wherein a coaxial communication control unit which connects a plurality of devices such as displays and/or printers and the like by coaxial lines is connected to said device communication control unit of each of said first and second basic units through a common local area network.

10. A relay apparatus which is connected to a host computer of a present system or a host computer of a standby system through a network and transmits data received from said host computer in a

connecting relation to a device, comprising:

a basic unit into which a peculiar network address is set and which performs a relay control between said host computer of the present system or said host computer of the standby system and the device; and

a common unit which instructs said basic unit to select the host computer of the present system or said host computer of the standby system and activates the selected host computer.

11. An apparatus according to claim 10, wherein said basic unit comprises:

a power control unit which notifies said common unit of a power-on operation at the time of a turn-on operation of a power switch and, thereafter, turns on a power source;

a secondary storing unit which stores resources including each set information of said host computer of the present system and said host computer of the standby system;

a host communication control unit which is initialized by the set information of the host computer which was selected and instructed from said common unit, is connected to said host computer, and communicates therewith;

a device communication control unit which is connected to said device and communicates therewith; and

a main control unit which performs a relay control for relaying data received from said host computer to said device,

and said common unit comprises:

a host selecting switch which instructs a selection of the host

computer of the present system or the host computer of the standby system; and

a common unit interface which is connected to said basic unit and communicates therewith and responds a selecting instruction of the host computer by said host selecting switch in response to a notice of a power-on operation from said basic unit.